From: Pedro Macanas
Sent: Thursday, September 27, 2007 5:50 AM
To: Climate Change
Subject: Updated Macroeconomic Analysis

Importance: High
Good morning,

some suggestions for the analysis:

* Include energy units in Joules and multipliers (ie. GJ). Better for international comparation and obtain also international standards (less cost to implement standards).

* In ethanol, would be splitted between cellulosic and non-cellulosic ethanol.
* Building efficiency standards can be obtained for Spain approved rules by the Spanish Goverment.

2.2 Asumptions:

* "...producing energy from a low carbon fuel OR POST-CARBON SOURCE, such as providing electricity from forest biomass, landfill gas, wind or sun".
* "shifting.... to grid-supplied POST-CARBON electricity".

* "electric energy in " MJ (Megajoules).

* "gasoline and diesel (petroleum fuels, also called petrofuels) in gallons and LITERS.

2.2.1. Emissin Factors:

*"...analysis for natural gas, petroleum derived gases - i.e. butane-, and diesel fuel..."

* Avoided Fossil Generation: "...plant is defined as a FOSSIL FUEL fired combined cycle unit..."

2.2.2. "Energy and Source Prices"

It would be include prices of biofuels and sources to produce biofuels (i.e. average vegetable oil price), in Exhibit 8.

"In some cases, energy consumption is shifted from one fuel to another, such as shifting from diesel ELECTRICITY generation...."

"2005 IEPR"--> do an Annual Updated Report

".... will be produced form a gas combined cycle facility ". Gas produces CO2. So, better solar or wind electricity generation.

* "Prices Applied to OTHER Renewable Power Generation": ..."The T&D capital costs were excluded because such costs would not be avoided when centralized renewable generation displaces centralized fossil or nuclear generation, excepting using DECENTRALIZED renewable generation, transmission and distribution" .

3.2. Overview of Modeling Frameworks.

You woud include the ADVOIDED healthcare and disease (i.e. heart or lung diseases) from greenhouse gases and pollution. This is VERY VERY important to calculate (social) costs to individuals, families and society.

Include also the environmental disaster costs (i.e. oil splits, wildfires and so on) because of petroleum use.

Regards.

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